



Implementing Clean Energy Efficiency Projects at the U.S. Postal Service

Ray Levinson
U.S. Postal Service
ray.a.levinson@usps.gov
415-405-4886
August 17, 2005



USPS Facility Energy Data:

- **35,000 Buildings**
- **350,000,000 sq. ft.**
- **23,388 BBTUs per year**
- **66,800 BTUs/sq. ft. in FY 2004**
- **4.7 million MWH, 5.7 million therms**
- **\$465,000,000 Annual Energy Cost**

Pacific Area: About 10% of above, except for energy cost (\$60 million, or about 14%)



Background

- **Capital Freeze, EPAct & E.O 13123 requirements, NEMP & SEMP targets**
 - **Established Inter Agency Agreement with Dept. of Energy / FEMP /LBNL for technical assistance**
 - **Established Area Energy Program Committee**
 - **Developed Area Strategic Energy Management Plans**
 - **Reduction goals based on EPAct and E.O. requirements**
-



Shared Energy Savings

- **USPS decided not to use the DOE Super ESPC program (exempt from FAR)**
- **Resurrected postal version “Shared Energy Savings” purchasing contract**



Contract Revised and Awarded

- **Revised SES for Pacific Area**
- **Awarded contracts to Viron /
Chevron Energy Solutions and
Honeywell (Oct 2002)**



Deployed Contract to Field

- **Developed Reduction Goals**
- **Developed tracking report for 10 Districts**
- **Formed District EPCs**
- **Introduced ESCOs at District EPC meetings**



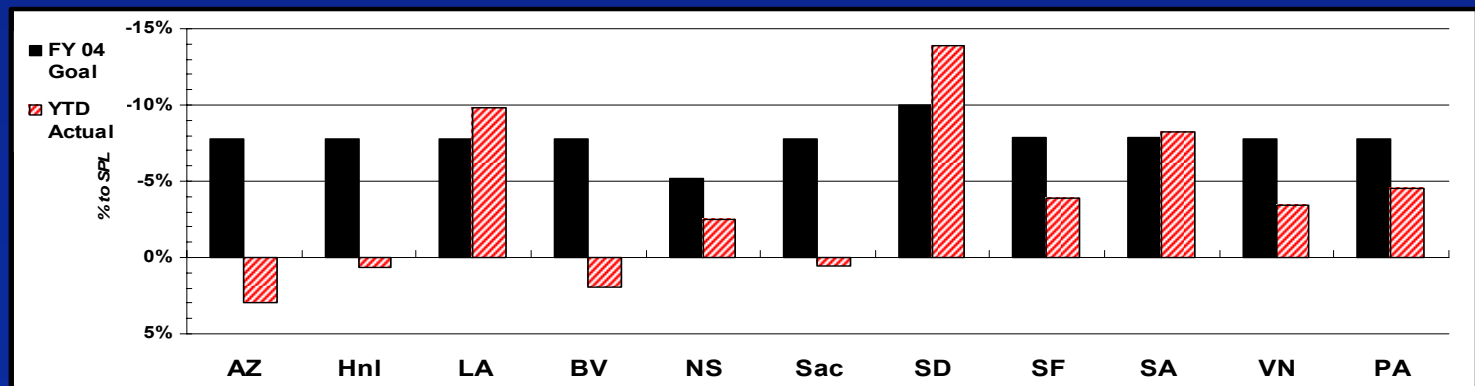
Implementation

- ESCOs evaluated list and prioritized groups of facilities
 - Developed proposals for ECMs
 - Worked closely with local committee to review technical and financial suitability of measure for each site
 - Internal capital and external rebates used to bring ROI up
 - Once agreed upon, local committee requested Contracting Officer to issue Delivery Order
 - ESCO worked with site to develop schedule
 - Once substantial completion, payments began
-



Results

- Over 200 sites surveyed
- 139 projects awarded
- \$61.7 million project value
- 60.5 million kWh saved annually
- 11,352 tons CO₂, 151 tons NO_x reduced





Typical ECMs

- **Lighting Improvements & upgrades**
 - **Solar photovoltaic systems**
 - 406 kW Parking Canopy
 - 309 kW Roof Integrated / Tracking Canopy
 - **250 kW Fuel cell**
 - **1.5 MW CHP gas fired w/ heat recovery**
 - Absorption Chiller
-



CFC Chiller replacement program

- **Replace with high-efficiency, non-CFC**
- **Variable speed chilled & heating water pumps**
Insulate mechanical room
- **EMS re-commissioning and upgrade**
- **Insulate condenser water piping**
- **Rebalance exhaust fan**
- **Add & re-commission programmable thermostats**

5,115 tons cooling = 15,345 lbs ODS reduced!



Sacramento Processing & Distribution Center

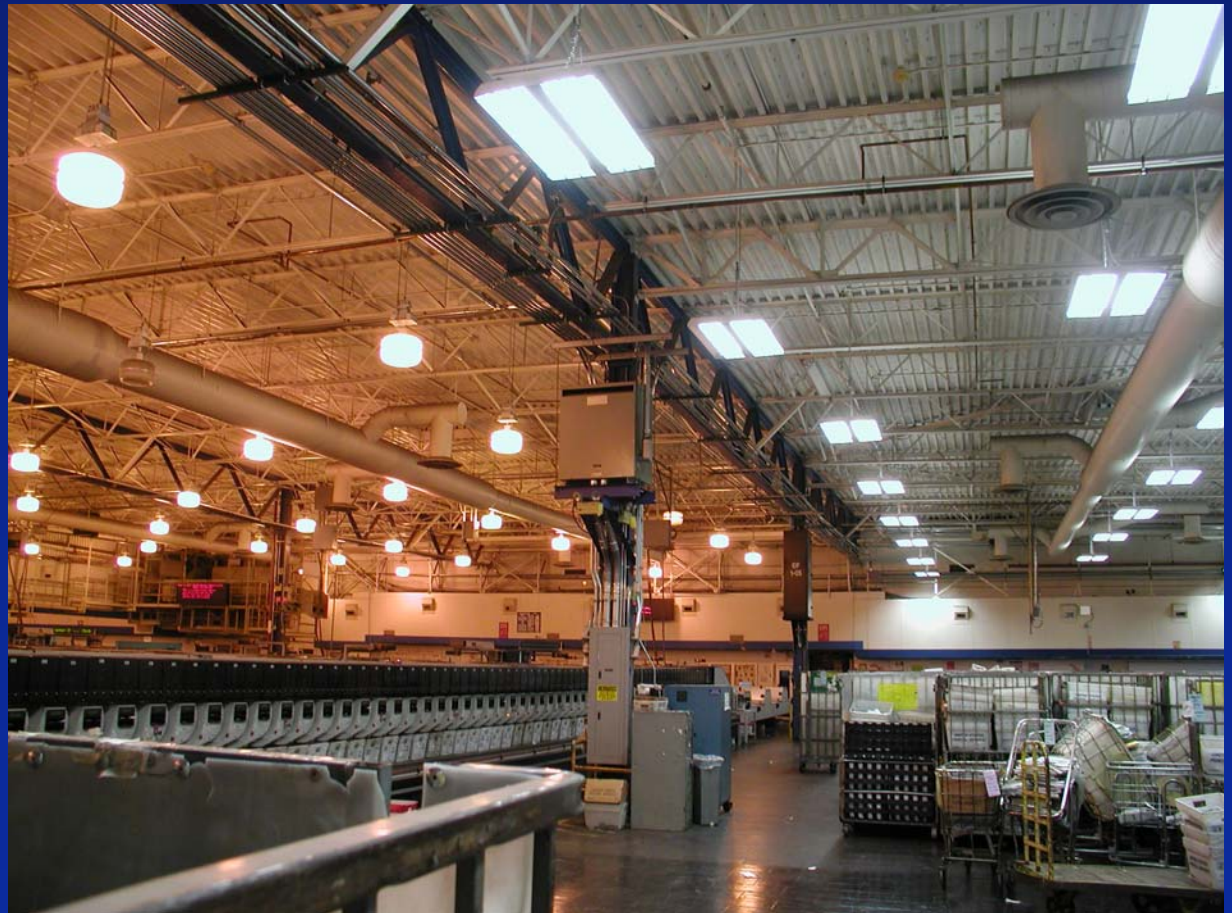


406 kW Parking Lot Canopy



San Francisco Processing & Distribution Center

**T 8
fluorescents
replaced
older
technology**





Marina Processing & Distribution Center

**127 kW
roof
mounted
non
penetrating**

